

1. A method of treating a subterranean zone penetrated by a well bore comprising the steps of:

(a) preparing or providing a high density viscous salt water treating fluid having a density in the range of from about 9 lbs/gal to about 15 lbs/gal that comprises salt water, a gelling agent and a delayed oxidizing gel breaker, said salt water comprising water and one or more oxidation resistant salts;

(b) introducing said high density viscous salt water treating fluid into said subterranean zone; and

(c) allowing said high density viscous cross-linked salt water treating fluid to break into a low viscosity fluid.

2. The method of claim 1 wherein said one or more oxidation resistant salts are selected from the group consisting of calcium, potassium, cesium or sodium acetate; potassium, cesium or sodium citrate; potassium, cesium or sodium nitrate; and potassium, cesium or sodium formate.

3. The method of claim 1 wherein said oxidation resistant salt is sodium nitrate.

4. The method of claim 1 wherein said gelling agent is selected from the group consisting of guar gum and its derivatives, cellulose derivatives, welan gum, xanthan biopolymer and succinoglycon biopolymer.

5. The method of claim 1 wherein said gelling agent is xanthan biopolymer.

6. The method of claim 1 wherein said gelling agent is present in said treating fluid in an amount in the range of from about 0.05% to about 2% by weight of said salt water therein.

7. The method of claim 1 wherein said delayed oxidizing gel breaker is selected from the group consisting of potassium, ammonium or sodium persulfate; potassium, ammonium or sodium perborate; potassium, ammonium or sodium bromate; potassium, ammonium or sodium periodate; potassium, ammonium or sodium chlorate; and potassium, ammonium or sodium chlorite.

8. The method of claim 1 wherein said delayed oxidizing gel breaker is sodium persulfate.

9. The method of claim 1 wherein said delayed oxidizing gel breaker is present in said treating fluid in an amount in the range of from about 0.01% to about 5% by weight of said salt water therein.

10. The method of claim 1 which further comprises a cross-linking agent for cross-linking said gelling agent and thereby increasing the viscosity of said treating fluid.

11. The method of claim 10 wherein said cross-linking agent is selected from the group consisting of borate releasing compounds, a source of titanium ions, a source of zirconium ions, a source of antimony ions, and a source of aluminum ions.

12. The method of claim 10 wherein said cross-linking agent is a borate releasing compound.

13. The method of claim 10 wherein said cross-linking agent is present in said treating fluid in an amount in the range of from about 0.025% to about 1% by weight of said salt water therein.

14. A method of treating a subterranean zone penetrated by a well bore by placing particulate gravel material therein comprising the steps of:

(a) preparing or providing a high density viscous salt water carrier fluid having a density in the range of from about 9 lbs/gal to about 15 lbs/gal that comprises salt water, xanthan biopolymer gelling agent, a delayed oxidizing gel breaker and suspended particulate gravel material, said salt water comprising water and one or more oxidation resistant salts;

(b) introducing said high density viscous salt water carrier fluid into said subterranean zone; and

(c) allowing said high density viscous salt water carrier fluid to break into a low viscosity fluid whereby said particulate gravel material is deposited in said subterranean zone.

15. The method of claim 14 wherein said oxidizing resistant salt is sodium nitrate.

16. The method of claim 14 wherein said gelling agent is present in said treating fluid in an amount in the range of from about 0.05% to about 2% by weight of said salt water therein.

17. The method of claim 14 wherein said delayed oxidizing gel breaker is sodium persulfate.

18. The method of claim 14 wherein said delayed oxidizing gel breaker is present in said treating fluid in an amount in the range of from about 0.01% to about 5% by weight of said salt water therein.

19. A method of treating a subterranean zone penetrated by a well bore by fracturing the zone and depositing particulate proppant material in the fractures formed comprising the steps of:

(a) preparing or providing a high density viscous salt water fracturing fluid having a density in the range of from about 9 lbs/gal to about 15 lbs/gal that comprises salt water, xanthan biopolymer gelling agent, a delayed oxidizing gel breaker and suspended particulate proppant material; said salt water comprising water and one or more oxidation resistant salts;

(b) introducing said high density viscous salt water fracturing fluid into said subterranean zone at a rate and pressure sufficient to fracture said subterranean zone; and

(c) allowing said high density viscous salt water fracturing fluid to break into a low viscosity fluid.

20. The method of claim 19 wherein said oxidization resistant salt is sodium nitrate.

21. The method of claim 19 wherein said gelling agent is present in said treating fluid in an amount in the range of from about 0.05% to about 2% by weight of said salt water therein.

22. The method of claim 19 wherein said delayed oxidizing gel breaker is sodium persulfate.

23. The method of claim 19 wherein said delayed oxidizing gel breaker is present in said treating fluid in an amount in the range of from about 0.01% to about 5% by weight of said salt water therein.

24. A high density viscous salt water treating fluid for treating subterranean zones having a density in the range of from about 9 lbs/gal to about 15 lbs/gal that comprises:

salt water comprising water and one or more oxidation resistant salts;

a gelling agent; and

a delayed oxidizing gel breaker.

25. The treating fluid of claim 24 wherein said oxidization resistant salt is sodium nitrate.

26. The treating fluid of claim 24 wherein said gelling agent is xanthan biopolymer.

27. The treating fluid of claim 24 wherein said gelling agent is present in said treating fluid in an amount in the range of from about 0.05% to about 2% by weight of said salt water therein.

28. The treating fluid of claim 24 wherein said delayed oxidizing gel breaker is sodium persulfate.

29. The treating fluid of claim 24 wherein said delayed oxidizing gel breaker is present in said treating fluid in an amount in the range of from about 0.01% to about 5% by weight of said salt water therein.

30. The treating fluid of claim 24 wherein further comprises a cross-linking agent for linking-linking said gelling agent and thereby increasing the viscosity of said aqueous treating fluid.

31. The treating fluid of claim 30 wherein said cross-linking agent is a borate releasing compound.

32. The treating fluid of claim 30 wherein said cross-linking agent is present in said treating fluid in an amount in the range of from about 0.025% to about 1% by weight of said salt water therein.